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Corn-Growers Can Avert Seed Corn Famine

1927–1928

Minnesota needs between a half and three-quarters of a million bushels of seed each year to plant the usual four-and-a-half-million acre corn crop. Practically no reserves of old seed corn are on hand and unless very unusual weather conditions prevail during September, the price of seed corn for planting in 1928 will be high. Every corn-grower can help save the local varieties adapted to the state and avoid paying high prices for seed in the spring of 1928 by saving and drying his own supply of seed corn this fall.

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Seed Corn Famine Possible

Corn-growers in Minnesota have for years been endeavoring by purchase of seed or by selection in the field to secure varieties or strains of corn that will give the best results in maturity and yield per acre on their farms.

The experiment stations of the state have been growing strains of the different well recognized varieties of corn in carefully conducted yield tests and dates of maturity have been recorded.

On the basis of the results of this work the list of recommended varieties for the different sections of the state has been made up.

As a result a majority of the corn-growers in the state have been growing this year strains of varieties of corn that will mature before killing frosts in all but exceptionally unfavorable years. This year the weather has been very unfavorable for corn throughout. The weather was cool during May, and little real corn weather has occurred since then. The last week in August and the first few days of September have been favorable for this season of the year and have helped to make a corn crop, but, even with two or three weeks more of favorable weather, there will still be much soft corn.

Save Adapted Strains and Varieties

Owing to the fact that there were practically no reserves of the well adapted strains of varieties of corn, left after the planting was completed this spring, there is danger of losing these strains or

varieties, either very largely or entirely, unless extraordinary precautions are taken in saving and drying seed corn this year.

Selecting Seed Corn in 1927

All corn-growers know that when corn is well dented, or, with flint corns, when the inside of the kernels is mealy, seed ears may be gathered. The corn in many fields will not reach that stage this year unless unusually favorable weather prevails through September. Hence it is of importance to know how much less mature ears may be and still make good seed when properly dried.

Seed Corn from Roasting Ears

Work done over a three-year period at University Farm, with work at other experiment stations, shows that ears in the roasting stage, gathered from the field before severe frosts, and dried properly, produce seed corn of good germination. Ears in the roasting stage have well developed kernels with the inside in thin to medium milk condition. Therefore, as soon as the ears have reached the roasting-ear stage and the weather looks as if killing frosts might occur, or immediately after the leaves have been killed by light frosts, the number of ears needed to supply the seed for planting next spring should be taken in and dried properly. A light frost severe enough to kill the leaves of the corn plant usually does no damage to the ears. Severe frosts or continued cold is what does the damage.

If good weather continues and ears in the field reach the dough or the dent stage before killing frosts, another and better supply can be brought in. Corn in the dough or dent stage properly dried makes somewhat better seed than corn in the roasting ear stage, but it is a well established fact that roasting ears can be used for seed in an emergency with satisfactory results.

Where neighbors have corn that is farther advanced owing to higher productivity of the soil or to earlier maturing strains, arrangements may be made for the privilege of gathering the number of seed ears needed from the more advanced corn. In this way seed can be secured at a much more reasonable price than it will cost next spring.

How Many Ears to Gather

One hundred and fifty or sixty ears of Minnesota 13 corn as grown in central Minnesota will make a bushel of shelled seed corn after tips and butts have been removed. A bushel of good seed corn will plant eight acres in hills or drilled for grain production. For silage production somewhat thicker planting is advisable and for fodder 20 to 30 pounds of seed per acre is the usual rate.

Drying Seed Corn

Proper drying of seed ears is essential at all times, but is particularly important when the ears are immature. Seed ears in the roasting stage average from 75 to 80 per cent of water as compared with 65 to 70 per cent for ears in the dough

stage and about 50 per cent in the advanced dent stage. The larger the amount of water present in the seed ears, the greater the precautions necessary for satisfactory drying.

Poor Places to Dry Seed Corn

On the plant in the field seed corn dries slowly. Husked and hung up outside, ears dry more rapidly than when attached to the plants, but they are exposed to all the changes of weather and are likely to be injured by frost. Corn hung out of doors or in an unheated building rarely dries below 20 per cent of water, and, hence, is readily injured by freezing. After temperatures in a building go below freezing, corn will be injured unless already dried down to 14 per cent moisture or less. Piling immature seed ears in the corner of a room that is not heated and has little or no ventilation is certain to bring poor results.

Some Artificial Heat Needed

Much more rapid drying takes place where some artificial heat is supplied than where it is dried at open air temperatures. At room temperatures of 65 to 70 degrees, with good circulation of air, corn can be dried to 14 per cent or less of water in four weeks. A room above the kitchen connected by a door that can be kept open is a good place to dry seed corn. Putting the ears on some sort of hangers, which prevent ears from touching each other, and hanging them from the rafters permits circulation of air about each ear. Seed

corn "trees," made at home, aid in drying seed corn.

Hanging seed corn ears from the rafters in the attic is usually satisfactory even though it is not possible to supply artificial heat. The attic gets hot during the day and if the windows are closed each night freezing will not occur until continued cold weather sets in. Good ventilation is essential whether artificial heat is supplied or not. Every grower has the facilities available for properly drying his own supply of seed corn, and, hence, where ears reach at least the roasting-ear stage, need not depend on others for his supply of seed for 1928.

Storing the Seed Ears

After the ears have been dried until the cob is brittle and the kernels shell easily, they may be removed to another place, preferably where freezing does not take place, where they are out of the way until time for testing for germination.

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